



To: Wendell Fischer
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Date: September 2, 1999
Subj.: Statement of Work for VBI70 Study

STATEMENT OF WORK

Scope of Work

The Subcontractor shall provide services to ISSI Consulting Group, Inc. (ISSI) for the Vasquez Blvd.-I70 Project. The particular requirements for this phase of the project are outlined below. ISSI stipulates that the charges will be assessed for work according to the quotation (# 99000209-1) provided on September 1, 1999. ISSI further stipulates that all method requirements and components of this statement of work must be met.

Laboratory Analysis

Analytical methods

The Subcontractor will quantitatively analyze for arsenic and lead as listed below. All analyses will be performed according to the methodology listed below. The Practical Quantitation Limits (PQL) listed in the table below will be met.

Analysis

Perform metals analysis for arsenic and lead on surface soil and aqueous samples. The soil samples have been dried and sieved into two separate fractions: bulk (sieved to <2mm) and fines (sieved to <250 μ m). As we discussed, courier service will be provided by Core Laboratories for pick-up at the field office, after calling ISSI to confirm. Samples will be transported under chain-of-custody for analysis by any of the following methods providing the project PQLs and all method requirements are achieved. Estimated values ("B") should be reported for results that are below the PQL but above the method detection limit (MDL).

| Instrument | Method | Method Detection Limits | | | | Practical Quantitation Limits | | | |
|------------|---|-------------------------|--------------------|-------|--------------------|-------------------------------|--------------------|-------|--------------------|
| | | Arsenic | | Lead | | Arsenic | | Lead | |
| | | mg/L | mg/kg ^a | mg/L | mg/kg ^a | mg/L | mg/kg ^a | mg/L | mg/kg ^a |
| ICP | USEPA SW-846 6010B | 0.001 | 0.5 | 0.001 | 0.5 | 0.010 | 5 | 0.010 | 5 |
| ICP-MS | USEPA SW-846 6020 | 0.005 | 0.01 | 0.01 | 0.5 | 0.5 | 1.0 | 1 | 5 |
| GFAA | USEPA SW-846 7060 (Arsenic) and 7421 (Lead) | 0.005 | 0.01 | 0.01 | 0.005 | 0.5 | 1.0 | 1 | 5 |

^a soil results are to be reported on a dry-weight basis

ICP - Inductively Coupled Plasma

ICP-MS - Inductively Coupled Plasma-Mass Spectrometry

GFAA - Graphite Furnace Atomic Absorption

Deliverables

The Subcontractor will provide ISSI with the following deliverable package within 10 working days of receipt of samples at the Subcontractor's laboratory: analytical report, quality control report raw data and electronic disk deliverable. The specific contents of each deliverable component are outlined below.

Analytical Reporting

Contract Laboratory Program (CLP)-like data packages will be required for all laboratory analytical data. These CLP-like data packages will include a case narrative, copies of all associated raw data, sample results and all associated QC summaries. A summary of the data package requirements is shown below:

Section I

Case Narrative

1. Case narrative
2. Copies of nonconformance/corrective action forms
3. Copies of sample receipt notices
4. Internal tracking documents, as applicable
5. Copies of all chain-of-custody forms

Section II

Analytical Results - All results will be reported on a dry weight basis.

1. Results for each parameter including dilutions and reanalysis (dry-weight basis)
2. Units of measure
3. Practical Quantitation Limit
4. Date of sample analysis
5. Date of sample receipt
6. Date of sampling
7. Dilution factor

Section III

QA/QC Summaries

1. Method blanks, continuing calibration blanks, preparation blanks, instrument blanks
2. Initial and continuing calibration verifications
3. Inductively Coupled Plasma (ICP, ICP/MS) interference check samples
4. Matrix spikes and post-digestion spikes
5. Laboratory control samples
6. Method of standard additions
7. ICP, ICP/MS serial dilution
8. Instrument detection limits

Section IV

Instrument Raw Data – Sequential measurement readout records for ICP, ICP/MS, graphite furnace atomic absorption (GFAA), which will include the following information, as applicable:

1. Environmental samples, including dilutions and reanalyses
2. Initial calibration (including reporting whether $r^2 \geq 0.995$)
3. Initial and continuing calibration verifications
4. Method blanks, continuing calibration blanks and preparation blanks
5. ICP, ICP/MS interference check samples
6. Matrix spike and post-digestion spikes
7. Matrix spike duplicate samples
8. Laboratory control samples
9. Method of standard additions
10. ICP, ICP/MS serial dilution

Section V

Other Raw Data

1. Sample digestion and preparation logs
2. Instrument analysis logs for each instrument used
3. Standard preparation logs, including initial and final concentrations for each standard used

Section VI **Electronic Data** – All analytical data will be supplied in electronic form as well as hardcopy form. All data will be provided in an ASCII format, using the data fields included on the attached spreadsheet.

Turn-around-time Requirements:

- 1) Analytical Results via facsimile and electronic mail. The email copy should be sent to the following address: abradley@issiinc.com, and mgoldade@issiinc.com, 10 working days from receipt of samples, to be submitted on a weekly basis.
- 2) Complete CLP-like data package:
15 working days from receipt of all samples.

PERIOD OF PERFORMANCE:

The period of performance shall be defined as August 2, 1999 through November 30, 1999.